

REMARKS

In response to the final Office Action dated 24 February 2004, Applicant hereby files the present Submission under 37 C.F.R. §1.114 along with a proper Request for Continued Examination and the required fee. Removal of the finality of the outstanding rejections and entry and consideration of the present Submission is requested.

In the outstanding Office Action, the Examiner rejects all pending claims 1-20 on prior art grounds. Herein, Applicant submits the present Amendments and Remarks which overcome the rejections and clearly illustrate the patentability of the claimed invention. The Examiner's particular rejections are now addressed in turn.

Claims 1, 2, 5, 8, 9, 13, 15, 17, and 19 are rejected as lacking novelty under 35 U.S.C. §102(b) in view of U.S. Patent No. 3,289,027 to Jones. In response, Applicant submits that Jones fails to teach each and every limitation recited in the rejected claims, thus the outstanding rejections are improper and may not be maintained.

Turning briefly to the claimed invention, Applicant notes that claims 1 and 2 are independent and claims 3-20 variously depend therefrom. Thus, novelty of claims 1 and 2 necessarily implies novelty of claims 3-20. Accordingly, claims 1 and 2 are primarily addressed herein.

Both of Applicant's claims 1 and 2 as amended herein recite a surge absorber without chips comprising, *inter alia*, lead terminals, with sealing spacers thereon, being adjustable within a cylindrical housing before being fixed airtightly thereto such that the distance between the discharge electrodes may be varied and set as desired. This advantageous and novel feature of Applicant's invention permits the recited surge absorber to be precisely tailored for a specific application. That is, the lead terminals/sealing spacers are positionable within the cylindrical housing so as to create a gap therebetween having a distance as desired. Thus, a wide variety of surge absorbers may be obtained very easily and accurately.

As will be conclusively shown herein, at least these above-emphasized limitations of amended claims 1 and 2 are not taught or even suggested by the Jones reference.

Applicant notes that support for the present amendment is found throughout the originally filed specification, for example at page 14, line 27 through page 15, line 26. Additionally, Applicant notes that no new issues are presented for the Examiner's consideration by the present amendment. Instead, the previously claimed limitation concerning the discharge electrodes being held within the housing with a predetermined distance therebetween, is simply clarified by way of the present amendment.

Turning briefly to Jones, the reference teaches a voltage protector including two cup shaped metal end caps 1 and 2, an intermediate metal sleeve 3, two ceramic spacing cylinders 4 and 5, and two electrodes 10 and 11. Col. 1, lines 40-70 and Figure 1. The spacing cylinders 4 and 5 include inner ends fixed within the metal sleeve 3 at shoulders 9 and opposite ends which extend from the sleeve 3. *Id.* The electrodes 10, 11 are fixed to the end caps 1, 2 and the end caps 1, 2 are fixed to the ends of the cylinders 4, 5 which extend from the sleeve 3. *Id.* Hexagonal shoulders d support the electrodes 10, 11 within the cylinders 4, 5. Col. 2, lines 5-15.

It is noted with particular emphasis that the Jones device does not provide the *adjustability* feature recited in amended claims 1 and 2. That is, Jones does not teach or suggest "lead terminals, with sealing spacers thereon, being adjustable within a cylindrical housing before being fixed airtightly thereto such that the distance between the discharge electrodes may be varied and set as desired", as recited in claims 1 and 2. To the contrary, the Jones configuration (electrodes fixed to end caps fixed to cylinders) is NOT adjustable within the sleeve 3 prior to being disposed and thus the distance between the electrodes 10, 11 within the sleeve 3 may not be 'varied and set as desired'.

As mentioned, in Jones the electrodes are mounted in the end caps 1, 2 and the caps are fixed on the cylinders 4, 5. Notably, Jones does not teach or suggest varying the

disposition of the end caps 1, 2 on the cylinders 4, 5. Instead chamfers 8 are provided to ensure a consistent fit of the caps on the sleeves thus necessarily disposing the electrodes within the sleeves in a non-adjustable manner. Col. 1, lines 58-62. Moreover, Jones does not teach or suggest varying the disposition of the cylinders 4, 5 within the sleeve 3. To the contrary, shoulders 9 are provided to ensure consistent placement and fixation of the cylinders within the sleeve. *Id.*

That is, Jones does not teach varying the position of either the end caps 1, 2 or the cylinders 4, 5 relative the sleeve 3. Nor does Jones teach varying the position of the electrodes 10, 11 within the end caps 1, 2. To the contrary, Jones provides chamfers 8 and shoulders 9 to ensure consistent placement of the end caps, electrodes, and cylinders relative to the sleeve. Thus, Jones provides no adjustability whatsoever and thus the distance between the electrodes 10, 11 within the sleeve 3 may not be 'varied and set as desired' as recited in Applicant's claims 1 and 2.

Moreover, to alter the positioning of the Jones electrode, with the sleeve thereon, would adversely effect the functioning of the device and perhaps rendered it inoperable. This is because, in the Jones device, the sleeve 3 functions as a third electrode. Col. 1, lines 23-25. Withdrawing the cylinders 4, 5 from the shoulders 9 to adjust the positioning of the electrodes within the sleeve 3 would expose an area of increased diameter of the sleeve intended for receiving the cylinders 4, 5. See Figure 1. This would change the shape and size of the 'third' electrode (i.e., the sleeve 3) and alter the distances from this 'third' electrode to the electrodes 10, 11, thus likely effecting the fields generated thereby and hence the overall operation of the device.

If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). Thus, not only are amended claims 1 and 2 novel over Jones but are also non-obvious for lack of the required suggestion or motivation to combine/modify. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Furthermore, a reference that teaches away from

the claimed invention is a significant factor to be considered in determining obviousness. *In re Gurley*, 31 USPQ2d 1130 (Fed. Cir. 1994). Jones teaching of chamfers 8 and shoulders 9 clearly teaches away from re-positioning and adjustability of the electrodes, with cylinders thereon, within the sleeve. Thus, here again, novelty *and* non-obviousness are found.

For at least these reasons, the electrodes of Jones, with cylinders and end caps thereon, are NOT adjustable within the sleeve prior to being fixed thereto, as required by amended claims 1 and 2. Since this limitation is not taught or suggested by Jones, the relevant claims 1 and 2, and claims 5, 8, 9, 13, 15, 17, and 19 depending therefrom, are not anticipated nor rendered obvious by the reference. Accordingly, reconsideration and withdrawal of the outstanding §102 rejection is respectfully requested.

Additionally, Applicant notes that Jones does not teach or suggest “a pair of lead terminals, each having a lead portion and a broadened tip forming a discharge electrode...[and] sealing spacers fitted and fixed on the lead portion of said lead terminal...”, as recited in claims 1 and 2. (Emphasis added.) Instead, Jones discloses spacing cylinders 4, 5 secured to a metal sleeve 3 at metalized end bands 7. The cylinders 4, 5 are not secured, by any means, to the electrodes 10, 11. The electrodes 10, 11 are secured to an internal surface of end caps 1, 2. Col. 1, lines 62-66. The electrodes 10, 11 extend freely from this point of fixation through the spacing cylinders 4,5 and into an interior of the metal sleeve 3. That is, Jones requires a separate additional piece (the end caps 1, 2) to set the electrodes 10, 11 within the cylinders 4, 5.

Clearly, Jones does not teach or even suggest sealing “spacers fitted and fixed on the lead portion”, as recited in claims 1 and 2. Accordingly, for at least this reason, claims 1 and 2, and claims 5, 8, 9, 13, 15, 17, and 19 depending therefrom, are novel and non-obvious with respect to Jones. Reconsideration and withdrawal of the outstanding rejections is respectfully requested.

Further, Jones does not disclose lead terminals with sealing spacers affixed thereon *inserted from open ends on both sides of said housing into an interior* of said housing, as required by claims 1 and 2. Since the spacing cylinders 4, 5 of Jones are in no way affixed on the electrodes 10, 11 of Jones (see above), clearly the reference does not teach this limitation. To the contrary the spacing cylinders 4, 5 are first affixed onto the metal sleeve, then the electrodes 10, 11 are separately affixed on to the end caps 1, 2, finally the end-cap/electrode assembly is inserted into and through the spacers 4, 5, extending into the interior of the metal sleeve 3. Col. 1, lines 62-66; Col 3, lines 1-15.

Accordingly, for at least this reason, claims 1 and 2, and claims 5, 8, 9, 13, 15, 17, and 19 depending therefrom, are novel over Jones; reconsideration and withdrawal of the relevant rejections is respectfully requested.

Additionally, Jones does not teach two sealing spacers *fixed/welded airtightly to an inside wall of said housing*, as required by present claims 1 and 2. In Jones, the shoulder 'd' of the electrodes 10, 11 is polygonal in cross-section whereas the surrounding spacing cylinders are circular in cross-section. Col. 2, lines 5-11. Thus, spaces are necessarily delimited between the spacing cylinders 4, 5 and the electrodes 10, 11. The electrodes 10, 11 each further include a passageway 12 extending from the spaces at the shoulder 'd' through the cylinders 4, 5 to the end caps 1, 2. *Id.* Thus, an airway is delimited from an interior of the metal sleeve 3 to each of the end caps 1, 2. Accordingly, the spacing cylinders 4,5 are in no way airtightly sealed with respect to the metal sleeve 3.

Accordingly, for at least this reason, claims 1 and 2, and claims 5, 8, 9, 13, 15, 17, and 19 depending therefrom, are novel over Jones; reconsideration and withdrawal of the relevant rejections is respectfully requested.

Independent claim 1 and 2 are not further rejected or objected and are thus allowable to Applicant.

The remaining claims 3-20 are further rejected under 35 U.S.C. §103(a) as being obvious with respect to various combinations of Jones, Kozlowski (U.S. 3,906,273),

Harada (U.S. 4,317,155), Kawiecki (U.S. 3,811,064), Lange (U.S. 4,266,260), Hill (U.S. 3,958,154), and Zuk (U.S. 4,175,277). However, all of claims 3-20 depend either from allowable claim 1 or 2. Therefore, claims 3-20 are correspondingly allowable; reconsideration and withdrawal of all relevant rejections is respectfully requested.

Notwithstanding the previous assertion of allowability of claims 3-20, Applicant now provides brief comments concerning the §103 references to further distinguish Applicant's claimed invention.

Concerning Kawiecki, the Examiner alleges that the reference teaches broadened tips comprising grooves forming a grid pattern, as recited in present claims 16 and 20. See, Office Action, paragraph 5. However, Kawiecki only teaches "a plurality of cavities 30 containing a...material such as potassium chloride..." Col. 3, lines 17-21. Kawiecki clearly does not disclose grooves forming a grid pattern as claimed.

The Examiner further relies upon Lange for broadened tips having grooves forming a grid patterned, as recited in claims 16 and 20. See, Office Action, paragraph 5. However, Lange only teaches faces of electrodes 1,2 including "a deep waffling, honey-combing or a plurality of concentric rings...in which an electrode activating substance 6 is anchored..." Col. 3, lines 14-19. Such features are clearly distinguished from the claimed grooved grid pattern.

The Examiner also relies on Hill for the claimed broadened tips having grooves forming a grid patterned. See, Office Action, paragraph 5. Hill, however, only teaches depositing a band of material 7 on opposing discharge surfaces 3C,5C. Col. 2, lines 53-63. The reference makes no disclosure of a grooved patterned, as claimed.

In the present obviousness rejections, the Examiner states Zuk teaches a broadened tip including a projected portion delimiting a conical cavity, as recited in claims 14 and 18. See, Office Action, paragraph no. 6. However, this reference only teaches a cylindrical cavity with a tapered end, as shown in the Figures. Zuk provides no description of this feature and we are left to guess at its specific characteristics.

For at least the reasons set forth herein, claims 1-20 are allowable to Applicant. Withdrawal of all outstanding rejections and prompt issuance of a Notice of Allowance are respectfully requested.

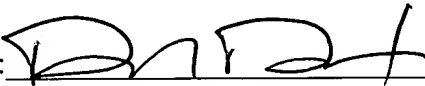
Applicant hereby petitions for any necessary extension of time in order to have this Reply entered and considered.

The Examiner is invited to contact Applicant's attorneys at the below-listed telephone number concerning the present Reply or otherwise regarding the instant application.

Please charge any fees due and credit any amounts to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,

CANTOR COLBURN LLP

By: 
Daniel F. Drexler
Registration No. 47,535
CANTOR COLBURN LLP
55 Griffin Road South
Bloomfield, CT 06002
Telephone: 860-286-2929
Facsimile: 860-286-0115
Customer No. 23413

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